Work Orde February-06-14				*112	737*							Page
Item ID: Revision ID: Item Name:	D3490-1 Cross Bol	t Spacer		Accept	*N900	040	100)*	Setup S	Start Stop	*N:	S1* S2*
Start Date: Required Date: Reference:	2/06/14 2/20/14	Start Qty: 80.00 Req'd Qty: 80.00	. , , ,		Cust Item I	D:					ı W.	. 17
Approvals:		Plan: MLJ				ite:				Start Stop	*N *N	R1* R2*
Sequence ID/ Work Center II)	Operation Description		Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Rejec Qty		Reject Number	Insp. Stamp
Draw Nbr		Revision Nbr										
D3490 100 *100* Hardinge Hardinge CNC Lath	1117,415	DWG RE	AS PER FOLIO FA628 & E	0.00 0.00 DWG D3490		·	,	DAS P	<u> </u>	14 -	02-	-12(
110 *110* QC Quality Control		QC2- Inspect parts off Memo	machine FAI/FAIB	0.00			•	P	<u> </u>	1-	02-1	12

120

QC8- Inspect parts - second check

0.00

120

Memo

0.00

on/14/02/12 92 x

Quality Control

DQA:		_ Date:			_							
					WORK ORDER NON	-co	NFO	RMANCE / UPDATE				AEROSPACE
QA Closed:		Date:							W	ork Order up	odate only	
Work Order					DISPOSITION	İ		AGA	AINST DE	PARTMENT	/PROCESS	
l lion worder	•				Rework	1		Skid-tube Cross	stube	}	Water Jet	Engineering
Part No	0.				Scrap			⊢	II Fab	Pro	d. Eng. Coor.	Quality
			•		Use-as-is	1			shing	1	re/Packaging	Other
NCR No	0.				Suspected Unapproved	1		Large Fab Comp			Supplier	
						'			<u> </u>	J		
Root				Desc	ription of work order update	lr	nitial	Action		Sign &		
Cause	Date	Step	Qty		or non-conformance	Chi	ef Eng	Description		Date	Verification	QC Inspector
Design												
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Equip/Tooling						1						
Handling/Pre											•	
Material												
Operator												
Offset/Setup	_											
Process	_											
Supplier												
Training	_					l						
Transport												
Unapproved		<u> </u>										
						FAU	ILT CAT	regory				
Landing	_			_	General					,	_	_
	Bending				Bend	$\boldsymbol{\vdash}$		Program	<u> </u>	Outside Dim	ensions	Pressure/Forced
<u> </u>		ot Concer	ntric	<u> </u>	BOM/Route	Щ	Grain			Over/Under	tolerance	Set-up
_	Cracks			-	Broken/Damage/Defect	\square	Hardwa	ire		Part Incorred	ct _	Temperature/Cure
	_	nk/Ripple	/Wave		Burrs	<u></u> Ц'	Inspect	ion Incomplete/Unqualified	d L	Part Lost/Mi	ssing	Weld
	Cuffs			<u> </u>	Contamination	-		ions Incomplete/Unclear		Part Moved		Wrong Stock Pulled
_	Crushing			<u> </u>	Countersink	-	_	ned/off center		Positioned V	~ <u>-</u>	 1
_	Heat Tre				Cut Too Short	\vdash	Mislabe			Power Loss/	Surge	Other
-		n Strip in	Tube	<u> </u>	Drawing	-	Misread				· · · · · · · · · · · · · · · · · · ·	
	Marks/Cl				Drill Holes	\vdash	Off-set					
	_	Sequence			Finish	-		Calibration				
1	Wave/Tv	vist in Tub	e	- 1	Fit/Function	1 1	Out of 9	Sequence				

Work Orde	er ID	11273
February-06-14	10:48:3	88 AM
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Work Order February-06-14				*112	737*						Page 2	
Item ID: Revision ID:	D3490-1			Accept	*N900	040	100)* s	etup Star	1 11.	S1*	
Armania di Karania di	Cross Bolt Spa 2/06/14 2/20/14	Start Qty: 80.00 Req'd Qty: 80.00	*80* *80*		Cust Item I Customer:	D:			Stop	' *N:	S2*	
Approvals:	0.0	n:	Date:	Tooling: SPC (Y/N):		ate:		R	tun Star Stop	, "I V H	R1* R2*	
Sequence ID/ Work Center II	D	Operation Description Identify as per dwg & Sto	ack Location: ///a	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp	
130 Packaging Packaging		Memo CLEAN CRO	DSSBOLT SPACER WITH	0.00	JER			92	<u>L</u>	14-02-	24 X	2
¹⁴⁰ *1⊿∩*		QC21- Final Inspection -		0.00					—— U	V -14-0	9J-JY	
Quality Control				,				(H))14.02	.24		

DQA:			Date:			MODE ODDED NON	~		DAAANCE / LIDDATE				DART
QA Closed:			Date:			WORK ORDER NON-	-CC	JNFOI	RIVIANCE / UPDATE	W	ork Order up	odate only	AEROSPACE
					·	DISPOSITION			AGAIN	IST DE	PARTMENT	/PROCESS	
Work Orde	er: -					a	ı		sitte I		1	\4/a4a# a4	
D A						Rework			Skid-tube Crosstu	<u> </u>	J	Water Jet	Engineering
Part N	۷O					Scrap			Machining Small F noforming Finish		-{	d. Eng. Coor.	Quality Other
NCR 1	VI.O.					Use-as-is Suspected Unapproved		mem	noforming Finish Large Fab Compos		, Kec/Stor	re/Packaging Supplier	- Other
NCN I	٠٠٠					Suspected Onapproved			raige rab compos	e.		3upplier _	
Root					Desci	ription of work order update	1	nitial	Action		Sign &		
Cause		Date	Step	Qty		or non-conformance	Ch	ief Eng	Description		Date	Verification	QC Inspector
Design													
Doc/Data	Ш			-									
Equip/Tooling	Ц						Ì						
Handling/Pre	Ш												
Material	Ш												
Operator	Ш												
Offset/Setup	Ш												
Process													
Supplier	Ц												
Training	Ш												
Transport	Ш						ļ						
Unapproved						-							
							FAI	ULT CAT	regory				
Landi	$\overline{}$				_	General		1			7		
	-	Bending			<u> </u>	Bend		1	rogram e		Outside Dim	ensions	Pressure/Forced
	Ш	Centre No	ot Concer	ntric	ļ	BOM/Route		Grain		L	Over/Under	tolerance	Set-up
	\vdash	Cracks				Broken/Damage/Defect		Hardwa	re		Part Incorre	ct	Temperature/Cure
	-	Crimp/Kir	nk/Ripple	/Wave		Burrs	<u> </u>	Inspect	ion Incomplete/Unqualified		Part Lost/Mi	ssing	Weld
	Н	Cuffs			<u> </u>	Contamination		1	ions Incomplete/Unclear		Part Moved	Ĺ	Wrong Stock Pulled
	\vdash	Crushing				Countersink	_	1	ned/off center	L	Positioned V		
	\vdash	Heat Trea				Cut Too Short	<u> </u>	Mislabe			Power Loss/	Surge	Other
	-	Inspectio		Tube	L	Drawing	L	Misread	d				
		Marks/Ch				Drill Holes	L	Off-set					
	Ш	Turning S	equence			Finish		Out of	Calibration				
	1 1	Wave/Tw	ist in Tub	ne		Fit/Function	1	Out of	Sequence				

February-06-14 10:48:45 AM

Work Order ID: 112737

112737

Parent Item:

D3490-1

D3490-1

Parent Item Name: Cross Bolt Spacer

Start Date: 2/06/14

Required Date: 2/20/14

Start Qty: 80.00

Required Qty: 80.00

Comments:

IPP Rev:A New Issue 06-03-03 JLM

									· - · · - · · · · · · · · · · · · · · ·					
Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status	
M6061T6T0.500W.049		Purchased	No			100	f	111.0000	0.266	23				

M6061T6T0 500W 049

6061-T6 RD Tube .500 x.049W

Location	Loc Qty	Loc Code	· ·
MAT014	111		
m126335	111		×26.

DQA:	A: Date:											TAART
OA Clasadi		Data			WORK ORDER NON-	-C(ONFO	RMANCE / UPDATE		lauli Oudan		AEROSPACE
QA Closed:		Date	•				<u> </u>		VV	ork Order up	date only	
Work Orde	er:				DISPOSITION			AGAIN	ST DE	PARTMENT	/PROCESS	
					Rework			Skid-tube Crosstul	oe 🗌	1	Water Jet	Engineering
Part i	No.				Scrap			Machining Small Fa	-	Pro	d. Eng. Coor.	Quality
					Use-as-is		Thern	noforming Finishi	ng	₹	re/Packaging	Other
NCR I	No				Suspected Unapproved			Large Fab Composi	te]	Supplier	
			,			,						
Root	1			Desc	ription of work order update	l	Initial	Action		Sign &		
Cause	Da	te Step	Qty		or non-conformance	Ch	nief Eng	Description		Date	Verification	QC Inspector
Design												
Doc/Data	Н				`							
Equip/Tooling	\vdash			ł								
Handling/Pre												
Material	\vdash											
Operator Offset/Setup	\vdash											
Process												
Supplier	 											
Training	H											
Transport								·				
Unapproved												
	· · · · · · · · · · · · · · · · · · ·					FA	ULT CAT	TEGORY		. <u>L </u>		<u> </u>
Landi	ng Gear				General						•	
	Bend	ing			Bend		Folio/F	rogram		Outside Dim	ensions	Pressure/Forced
	Centi	e Not Conce	entric		BOM/Route		Grain			Over/Under	tolerance	Set-up
	Crack	s			Broken/Damage/Defect] Hardwa	re		Part Incorred	ct	Temperature/Cure
	Crim	/Kink/Rippl	e/Wave		Burrs		Inspect	ion Incomplete/Unqualified		Part Lost/Mi	ssing	Weld
	Cuffs			<u> </u>	Contamination	_	Instruct	ions Incomplete/Unclear		Part Moved		Wrong Stock Pulled
	Crush	_		_	Countersink	_	-	ned/off center		Positioned V	Vrong	_
		Treat			Cut Too Short	_	Mislabe		L	Power Loss/	Surge	Other
	├ ──	ction Strip i	n Tube	_	Drawing	<u> </u>	Misread	i				
		s/Chatter			Drill Holes	<u> </u>	Off-set					
		ng Sequence			Finish	_	4	Calibration				
	Wave	/Twist in Tu	be		Fit/Function	l	IOut of 9	Sequence				

DART AEROSPACE LTD	Work Order:	112+37
Description: Crossbolt Spacer	Part Number:	D3490-1
Inspection Dwg: D3490 Rev: A		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

X First Article Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
Ø0.500	+0.006/-0.001	0.499				
0.049	+/-0.010	0.048				
Ø0.402	+0.006/-0.001	0.404				
3.085	+0.030/-0.000	3.09%				
0.050 x 45°	+/-0.010	0.040				
		-				

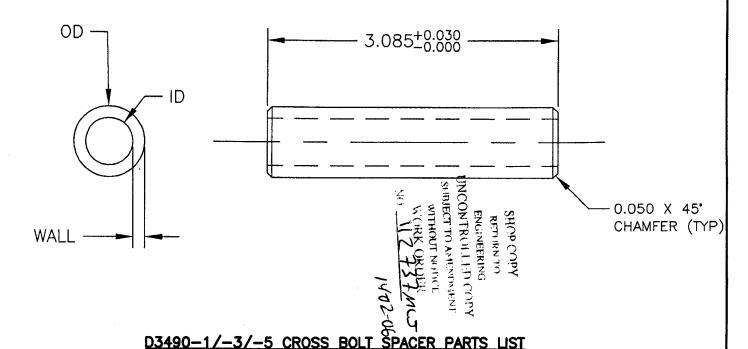
Ο.			
Measured by:	Audited by:	Prototype Approval:	N/A
Date: 14 -02 12	Date: 14/2/12	Date:	N/A

Rev	Date	Change	Revised by	Approved
Α	06.10.06	New Issue	KJ/JLM	
В	08.06.02	Dimensions and tolerances revised	KJ/DD 1.A	
С	08.10.07	0.050 x 45° dimension revised	KJ/DD 🛠	<i>X</i> 2





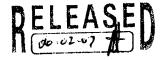
DESIG	PH	DRAWN BY	DART AEROSPAC	
CHECK	(ED M	APPROVED M	DRAWING NO.	REV. A
	#	-44-	D3490	SHEET 1 OF 1
DATE			TITLE	SCALE
06.01.04			CROSS BOLT SPACER	NTS
Α		06.01.04	NEW ISSUE	



PART NUMBER	OD	WALL	ID (REF)	MATERIAL SPEC
D3490-1	0.500	0.049	0.402	M6061T6T0.500W.049
D3490-3	0.750	0.080	0.591	M6061T6R0.750
D3490-5	0.313	0.058	0.197	M6061T6T0.313W.058

D3490-1/-3/-5 CROSS BOLT SPACER

- ALUMINUM 6061-T6 (QQ-A-200/8 OR QQ-A-225/8) 1) MATERIAL:
- 2) ALL DIMENSIONS ARE IN INCHES
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED



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